

THREE NEW LEAFHOPPERS (HOMOPTERA: CICADELLIDAE)
FROM COCOS ISLAND¹

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Abstract.—Two new species, *Scaphytopius (Cloanthanus) biflavus* and *Chlorotettix canolaterus*, belonging to the subfamily Deltocephalinae, and one new species, *Idona murrayae*, belonging to the subfamily Typhlocybiinae, are described. All are from Cocos Island, Costa Rica.

Through the kindness of Charles Hogue, Natural History Museum of Los Angeles County, we were able to examine leafhoppers collected on Cocos Island. This isolated tropical island lies 500 km southwest of Costa Rica and 445 km northeast of the Galapagos Islands.

Although most of the examined leafhopper fauna of Cocos Island is shared with the mainland, the three new species may be endemic. All types are deposited in the Natural History Museum of Los Angeles County, California.

Scaphytopius (Cloanthanus) biflavus Cwikla and Freytag, NEW SPECIES
Figs. 1-4

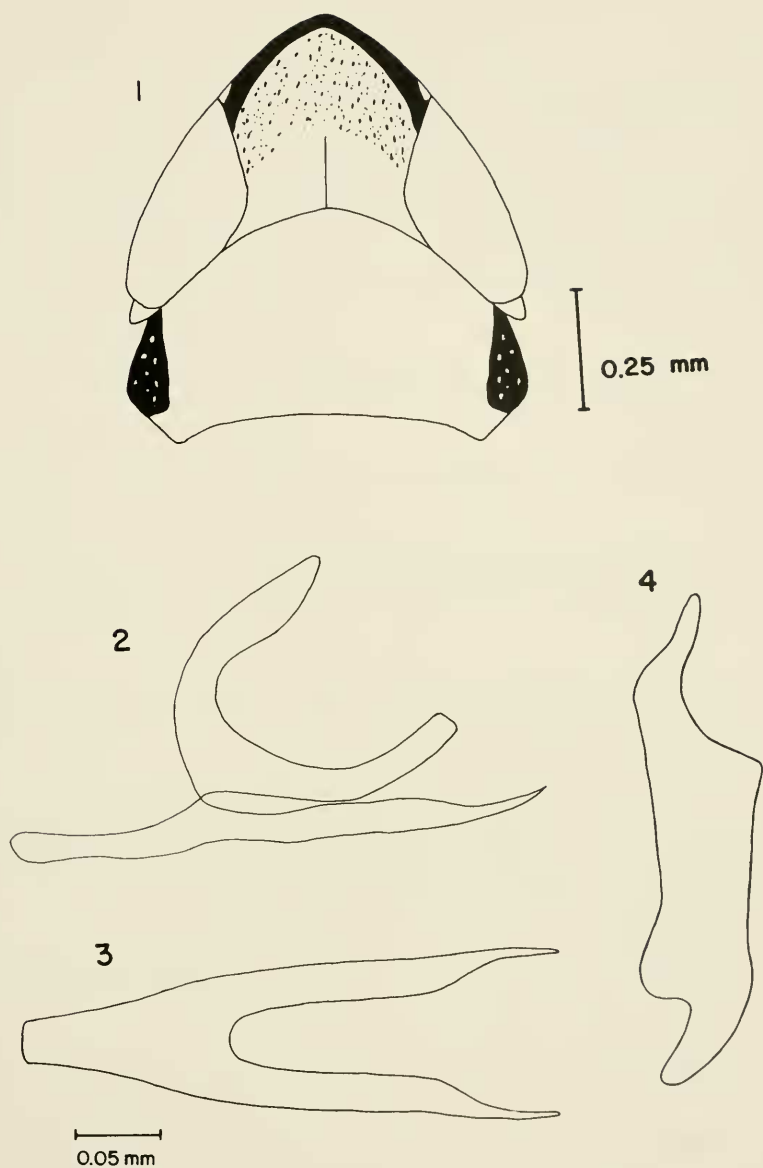
Description.—*Length:* Male 3.2 mm, female unknown.

Structural characteristics: Body relatively slender. Head as wide as pronotum. Crown produced anteriorly, median coronal length greater than least interocular width.

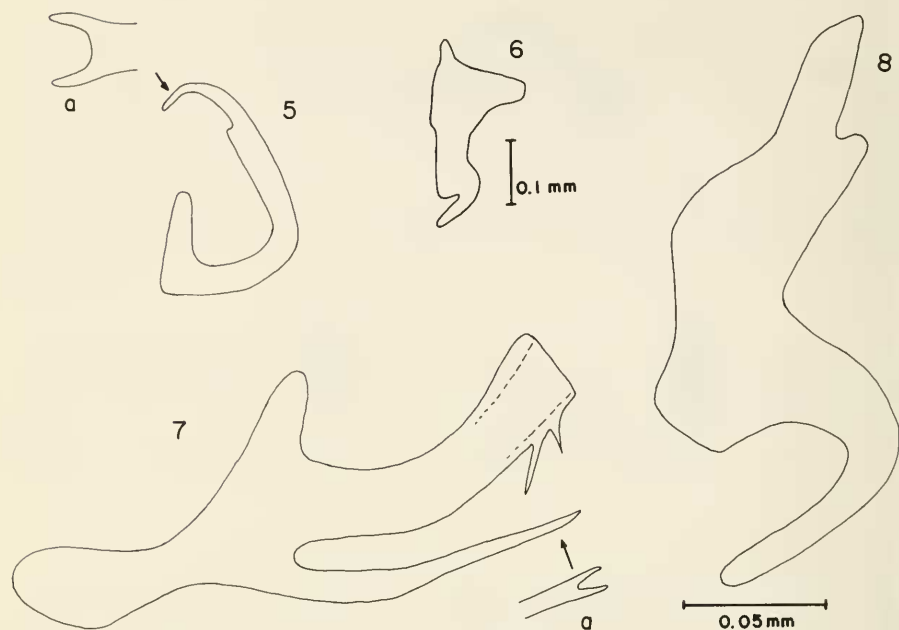
Coloration: Anterior margin of crown with dark brown band. Anterior ½ of crown yellow, posterior ½ whitish yellow. Face yellowish. Pronotum whitish yellow with lateral margins brown and irrorate with yellow. Forewing transparent with brownish markings on area of discal cell and around apical and subapical cells.

Male genitalia: Pygofer broadly rounded in apical ½. Genital plates short,

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Figs. 1-4. *Scaphytopius (Cloanthanus) biflavus*. 1, Head and pronotum, dorsal view. 2, Aedeagus and pseudostyle, lateral view. 3, Pseudostyle, ventral view. 4, Style, ventral view.



Figs. 5-8. 5, 6, *Chlorotettix canolaterus*. 5, Aedeagus, lateral view. 5a, Aedeagal apex, dorsal view. 6, Style, ventral view. 7, 8, *Idona murrayae*. 7, Aedeagus, lateral view. 7a, Ventral aedeagal process apex, ventral view. 8, Style, ventral view.

triangular, with row of setae on lateral margins. Style with apex blunt. Aedeagal shaft slender, truncate at apex. Pseudostyle (=paraphysis) fused at base, long, apex tapering to a point in ventral view.

Type.—Holotype ♂, Cocos Island (Costa Rica), Wafer Bay, 17-22 April 1975, C. L. Hogue.

Discussion.—This species will key to couplet 2 in Linnavuori's (1959: 73) key to the Neotropical *Scaphytopius* (*Cloanthanus*) Ball; however, a definite association with any of the keyed species cannot be made. It can be separated from other *Scaphytopius* (*Cloanthanus*) by the two shades of yellow on the crown and by the slender aedeagus that is apically truncate.

Chlorotettix canolaterus Cwikla and Freytag, NEW SPECIES

Figs. 5-6

Description.—Length: Male 2.9 mm, female unknown.

Structural characteristics: Body slender. Crown short, slightly produced anteriorly, granulate microsculpturing only on anterior margin.

Coloration: Crown, pronotum, and scutellum whitish yellow. Face yel-

low. Forewing whitish yellow with yellow patch on costal area and brown patch on 3rd apical cell. Legs and thorax brown.

Male genitalia: Style with apex hooked, blunted pointed. Aedeagus similar to *C. berryi* DeLong (DeLong, 1945: Plate 3) but with aedeagal shaft curved anteriorly, with pair of short dorsally curved processes.

Type.—Holotype ♂, Cocos Island (Costa Rica), Wafer Bay, 24 March 1978, Malaise trap, Station 3, C. Hogue and S. Miller, Steele Exped. 1978.

Discussion.—The generic placement of this species is based on genitalic similarities. This species is similar to *C. berryi* DeLong, but can be separated from it by the small size and the apical processes which are curved dorsally but not laterally.

Idona murrayae, Cwikla and Freytag, NEW SPECIES

Figs. 7–8

Description.—*Length*: Male 2.5 mm, female 2.6 mm.

Coloration: Body pale yellow. Forewing light yellow with white patch on costal area.

Male genitalia: Style with apex broadly hooked, bluntly pointed. Aedeagus similar to *I. aptera* (Beamer) (Beamer, 1943: Fig. 6D), but 2 spines on ventral margin of shaft near apex and ventral aedeagal process only bifurcate at apex.

Female genitalia: Posterior margin of 7th sternum truncate with median slightly produced.

Types.—Holotype ♂, Cocos Island (Costa Rica), Wafer Bay, 26 March 1978, Malaise trap, Station 3, C. Hogue and S. Miller, Steele Exped. 1978. Paratype ♀, Cocos Is. (500 km SW of Costa Rica), Chatham Bay, Malaise trap over stream, 9–11 April 1979, R. Silberglied.

Discussion.—The generic characters are like those described by Young (1952: 62) for *Idona* DeLong. This species is similar to *I. aptera* (Beamer) but can be separated from it by the two spines on the venter of the aedeagal shaft and by the apically bifurcate aedeagal process. This species is named in honor of Evelyn Murray.

LITERATURE CITED

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